

The listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1.-18. (Canceled)

19. (Currently Amended) A semiconductor device including comprising:  
a transistor; and  
an interlayer insulating film comprising silicon oxide formed over said transistor,  
wherein said interlayer insulating film includes halogen at a concentration of  $5 \times 10^{20} \text{ cm}^{-3}$  or less and carbon at a concentration of  $5 \times 10^{19} \text{ cm}^{-3}$  or less.

20. (Previously Presented) A semiconductor device according to claim 19,  
wherein the concentrations of halogen and carbon are detected by secondary ion mass  
spectroscopy.

21. (Previously Presented) A semiconductor device according to claim 19,  
wherein the halogen is chlorine.

22. (Previously Presented) A semiconductor device according to claim 19,  
wherein the halogen is fluorine.

23. (Previously Presented) A semiconductor device according to claim 19,  
wherein said interlayer insulating film includes carbon at a concentration of  $1 \times 10^{18} \text{ cm}^{-3}$   
or less.

24. (Previously Presented) A semiconductor device according to claim 19, wherein said interlayer insulating film includes halogen at a concentration of  $1 \times 10^{17} \text{ cm}^{-3}$  or more.

25. (Previously Presented) A semiconductor device according to claim 19, wherein the interlayer insulating film is formed by plasma chemical vapor deposition using an organic silane.

26. (Previously Presented) A semiconductor device according to claim 25, wherein the organic silane comprises at least a material selected from the group consisting of  $\text{Si}(\text{OC}_2\text{H}_5)_4$ ,  $\text{Si}_2\text{O}(\text{OC}_2\text{H}_5)_6$ ,  $\text{Si}_3\text{O}_2(\text{OC}_2\text{H}_5)_8$ ,  $\text{Si}_4\text{O}_3(\text{OC}_2\text{H}_5)_{10}$  and  $\text{Si}_5\text{O}_4(\text{OC}_2\text{H}_5)_{12}$ .

27.-34. (Canceled)

35. (Previously Presented) A semiconductor device comprising:  
a transistor having a gate electrode; and  
an interlayer insulating film comprising silicon oxide formed over said transistor wherein said interlayer insulating film directly contacts said gate electrode,  
wherein the interlayer insulating film includes halogen at a concentration of  $5 \times 10^{20} \text{ cm}^{-3}$  or less and carbon at a concentration of  $5 \times 10^{19} \text{ cm}^{-3}$  or less.

36. (Previously Presented) A semiconductor device according to claim 35, wherein the concentrations of halogen and carbon are detected by secondary ion mass spectroscopy.

37. (Previously Presented) A semiconductor device according to claim 35, wherein the halogen is chlorine.

38. (Previously Presented) A semiconductor device according to claim 35, wherein the halogen is fluorine.

39. (Previously Presented) A semiconductor device according to claim 35, wherein the concentration of carbon is  $1 \times 10^{18} \text{ cm}^{-3}$  or less.

40. (Previously Presented) A semiconductor device according to claim 35, wherein the concentration of halogen is  $1 \times 10^{17} \text{ cm}^{-3}$  or more.

41. (Previously Presented) A semiconductor device according to claim 35, wherein the interlayer insulating film is formed by plasma chemical vapor deposition using an organic silane.

42. (Previously Presented) A semiconductor device according to claim 41, wherein the organic silane comprises at least a material selected from the group consisting of  $\text{Si}(\text{OC}_2\text{H}_5)_4$ ,  $\text{Si}_2\text{O}(\text{OC}_2\text{H}_5)_6$ ,  $\text{Si}_3\text{O}_2(\text{OC}_2\text{H}_5)_8$ ,  $\text{Si}_4\text{O}_3(\text{OC}_2\text{H}_5)_{10}$  and  $\text{Si}_5\text{O}_4(\text{OC}_2\text{H}_5)_{12}$ .

43. (Previously Presented) A semiconductor device comprising:

a transistor having a gate electrode and a gate insulating film, said gate insulating film comprising silicon oxide;

an interlayer insulating film comprising silicon oxide formed over the gate electrode,

wherein each of the interlayer insulating film and the gate insulating film includes halogen at a concentration of  $5 \times 10^{20} \text{ cm}^{-3}$  or less and carbon at a concentration of  $5 \times 10^{19} \text{ cm}^{-3}$  or less.

44. (Previously Presented) A semiconductor device according to claim 43, wherein the concentrations of halogen and carbon are detected by secondary ion mass spectroscopy.

45. (Previously Presented) A semiconductor device according to claim 43, wherein the halogen is chlorine.

46. (Previously Presented) A semiconductor device according to claim 43, wherein the halogen is fluorine.

47. (Previously Presented) A semiconductor device according to claim 43, wherein the concentration of carbon is  $1 \times 10^{18} \text{ cm}^{-3}$  or less.

48. (Previously Presented) A semiconductor device according to claim 43, wherein the concentration of halogen is  $1 \times 10^{17} \text{ cm}^{-3}$  or more.

49. (Previously Presented) A semiconductor device according to claim 43, wherein the gate insulating film is formed by plasma chemical vapor deposition using an organic silane.

50. (Previously Presented) A semiconductor device according to claim 49, wherein the organic silane comprises at least a material selected from the group consisting of  $\text{Si}(\text{OC}_2\text{H}_5)_4$ ,  $\text{Si}_2\text{O}(\text{OC}_2\text{H}_5)_6$ ,  $\text{Si}_3\text{O}_2(\text{OC}_2\text{H}_5)_8$ ,  $\text{Si}_4\text{O}_3(\text{OC}_2\text{H}_5)_{10}$  and  $\text{Si}_5\text{O}_4(\text{OC}_2\text{H}_5)_{12}$ .

51. (Currently Amended) A semiconductor device comprising:  
a transistor having a gate electrode;  
an interlayer insulating film comprising silicon oxide formed over said transistor;

at least one electrode formed over said interlayer insulating film wherein said electrode is connected to one of source or drain of said transistor ~~though~~ through a contact hole of said interlayer insulating film,

wherein said interlayer insulating film includes halogen at a concentration of  $5 \times 10^{20} \text{ cm}^{-3}$  or less and carbon at a concentration of  $5 \times 10^{19} \text{ cm}^{-3}$  or less.

52. (Previously Presented) A semiconductor device according to claim 51, wherein the concentrations of halogen and carbon are detected by secondary ion mass spectroscopy.

53. (Previously Presented) A semiconductor device according to claim 51, wherein the halogen is chlorine.

54. (Previously Presented) A semiconductor device according to claim 51, wherein the halogen is fluorine.

55. (Previously Presented) A semiconductor device according to claim 51, wherein the concentration of carbon is  $1 \times 10^{18} \text{ cm}^{-3}$  or less.

56. (Previously Presented) A semiconductor device according to claim 51, wherein the concentration of halogen is  $1 \times 10^{17} \text{ cm}^{-3}$  or more.

57. (Previously Presented) A semiconductor device according to claim 51, wherein said interlayer insulating film is formed by plasma chemical vapor deposition using an organic silane.

58. (Previously Presented) A semiconductor device according to claim 57, wherein the organic silane comprises at least a material selected from the group

consisting of  $\text{Si}(\text{OC}_2\text{H}_5)_4$ ,  $\text{Si}_2\text{O}(\text{OC}_2\text{H}_5)_6$ ,  $\text{Si}_3\text{O}_2(\text{OC}_2\text{H}_5)_8$ ,  $\text{Si}_4\text{O}_3(\text{OC}_2\text{H}_5)_{10}$  and  $\text{Si}_5\text{O}_4(\text{OC}_2\text{H}_5)_{12}$ .

59. (Previously Presented) A semiconductor device according to claim 19 wherein said transistor is a thin film transistor.

60. (Previously Presented) A semiconductor device according to claim 35 wherein said transistor is a thin film transistor.

61. (Previously Presented) A semiconductor device according to claim 43 wherein said transistor is a thin film transistor.

62. (Previously Presented) A semiconductor device according to claim 51 wherein said transistor is a thin film transistor.